

Appl. No. 10/628,694
Amdt. Dated January 13, 2005
Reply to Office action of September 22, 2005

REMARKS

Claims 1 and 14 have been amended. Claims 16-19 have been added. Claims 1-19 are pending in the application. The amendments to claims 1 and 14 more clearly define the claimed invention. These amendments should place the claims in proper form for allowance. The amendments to claim 1 find support on page 8, line 23 to page 9, line 7, and as illustrated in Figs. 4 and 5. The amendments to claim 14 find support on page 14, lines 4-19. The addition of claims 16-19 find support in Figs. 17-20. Thus, no new matter is introduced. The Examiner has objected to claims 13-14 but would allow claims 13-14, if they were rewritten in independent form including all of the limitations of the base claim and any intervening claims, for which the applicants are appreciative of the Examiner. Favorable reconsideration of this application is respectfully requested in light of the above amendments and the following detailed discussion.

Claim Rejections – 35 U.S.C. § 102

The Examiner has rejected claims 1-8, 11, and 15 under 35 U.S.C. § 102(b) as being anticipated U.S. 5,810,392 to Gagnon (hereinafter Gagnon).

The Examiner asserts that Gagnon shows a vehicle seat, comprising: a seat frame (16); a spring assembly (19) supported by the seat frame; and an upholstery assembly (14) covering at least part of the seat frame and spring assembly; said spring

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assembly including a central support member (25) adapted to support at least most of a load of a vehicle occupant seated in said seat, a plurality of spring members supporting the central support member relative to the seat frame, and a plurality of displacement sensors (20), each for detecting a displacement of a selected point of said central support member relative to said seat frame. The Examiner asserts that the sensors would inherently identify a load distribution in the fore and aft or lateral directions, as the sensors are set to read a load from an occupant, which is then incorporated within a CPU program (see Fig. 11).

The applicants, however, traverse the rejection of claims 1-8, 11, and 15 as being anticipated by Gagnon. In contrast to Gagnon, applicants find that amended independent claim 1 specifically includes at least the limitations of at least one of said displacement sensors being arranged in parallel with one of the spring members to measure a change in the distance between the corresponding selected point of said central support member relative to a corresponding part of said seat frame.

After carefully studying the Gagnon reference, applicants can find nowhere in Gagnon where at least these limitations are taught or suggested. Instead, the applicants find that Gagnon discloses a rigid frame member 19 carrying a supportive cushioning elastic structure 25 and a seat pan 18 that supports the rigid frame member 19 at four corners thereof via sensors 20. Each sensor consists of a strain gauge, a load cell or a variable resistance pressure sensor. Thus, each sensor is adapted to detect a pressure, which the frame member 19 exerts upon the seat pan 18.

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On the other hand, according to the claim 1 of the claimed invention, it is the displacement of the "central support member (16) adapted to support at least most of a load of a vehicle occupant seated in said seat" that is detected. As can be readily appreciated by a person skilled in the art, the central support member undergoes a relatively large displacement in view of the function of the central support member to provide a cushioning effect to the seat occupant. In Gagnon, the part corresponding to the central support member is resiliently supported by the frame member 19, which, on the other hand, does not undergo any appreciable displacement.

It is the applicants' position that a sensor that measures a relatively large displacement is relatively easily manufactured, and is readily able to provide a relatively high precision and a stable operation for the intended purpose.

Therefore, the applicants respectfully submit that independent claim 1, and dependent claims 2-8, 11, and 15, which directly or indirectly depend from claim 1, are not anticipated by Gagnon, as the inventions defined thereby are not identically disclosed in Gagnon, as required by 35 U.S.C. § 102(b). Consequently, claims 1-8, 11, and 15 should be allowed over Gagnon. Accordingly, favorable reconsideration of claims 1-8, 11, and 15 is respectfully requested.

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The Examiner has also rejected claims 1-8, 11-12, and 15 under 35 U.S.C. § 102(b) as being anticipated by JP 2003-279399 to Enomoto et al. (hereinafter Enomoto).

The Examiner concludes by asserting that as to claims 1-8, 11-12, and 15, Enomoto shows a vehicle seat, comprising: a seat frame (5); a spring assembly (6) supported by the seat frame; and an upholstery assembly (3) covering at least part of the seat frame and spring assembly; said spring assembly including a central support member (4) adapted to support at least most of a load of a vehicle occupant seated in said seat, a plurality of spring members supporting the central support member relative to the seat frame, and a plurality of displacement sensors (8), each for detecting a displacement of a selected point of said central support member relative to said seat frame. The Examiner asserts that the sensors are incorporated within the spring assembly.

The applicants, however, assert that Enomoto (published on October 2, 2003) is not prior art to the present application, which was filed July 28, 2003. Furthermore, the present application has the benefit of the Convention priority.

In view of the above, applicants believe that Enomoto is not properly citable as prior art. Consequently, claims 1-8, 11-12, and 15 should be allowed over Enomoto. Accordingly, favorable reconsideration of claims 1-8, 11-12, and 15 is respectfully requested.

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Claim Rejections – 35 U.S.C. § 103

The Examiner has rejected claims 9-10 under 35 U.S.C. § 103(a) as being unpatentable over Gagnon.

The Examiner asserts that Gagnon shows all of the teachings of the claimed invention except the use of [a] grid formed from wavy wires or a combination of wavy wires or a combination of wavy and straight wires since applicant has not disclosed that wavy wires or a combination of wavy and straight wires solves any stated problem and it appears that the straight wires, as taught by Gagnon would perform equally well.

Applicants agree with the Examiner's concession that Gagnon does not disclose the use of a grid formed from wavy wires or a combination of wavy wires or a combination of wavy and straight wires. For at least these omissions in the Gagnon reference, the applicants assert that the claimed inventions are patentable on that basis.

Further, since claims 9 and 10 depend directly from claim 1, claims 9 and 10 are patentable at least on that basis. These rejections of claims 9 and 10 should, therefore, be withdrawn. Consequently, the applicant respectfully submits that claims 9 and 10 of the claimed invention should be allowed over Gagnon. Accordingly, favorable reconsideration of claims 9 and 10 is respectfully requested.

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CONCLUSION

For all the reasons described in the preceding paragraphs, the applicants respectfully submit that the present application is now in condition for allowance. Accordingly, a timely action to that end is courteously solicited.

If the Examiner has any remaining questions or concerns, or would prefer claim language different from that included herein, the favor of a telephone call to the applicants' attorneys is requested.

Respectfully submitted,



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